

REMARKS

Claims 1-11 are pending, with claims 1, 6, and 9 being independent. Claims 1, 6, and 9 have been amended.

Claims 1, 6 and 9 are objected to for several informalities. This rejection is obviated by the instant amendment because Applicant has amended claims 1, 6, and 9 as requested by the Examiner.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Nos. 5,837,919 to Yagla et al. in view of 5,679,917 to Bitsakis et al.

This rejection is respectfully traversed.

Yagla teaches a launcher having concentrically aligned inner and outer tubes with a concentric gas flow duct defined between the two tubes. Rocket exhaust gases flow out of the inner tube and are re-directed towards the gas flow duct by a cap that is welded to the outer tube.

Bitsakis teaches a breech plug support mechanism in which a movable ring is rotationally coupled to the breech end of launch tube. A plug is locked into place by moving the ring by means of a radially extending handle. The plug is moved into/out of axial alignment with the launch tube by means of a rod that is slidingly supported by brackets

mounted along the launch tube.

In contrast, Applicant discloses and claims a reloadable launcher using a concentric canister launch tube arrangement. Each of Applicant's independent claims 1, 6 and 9 recites a movable cap coupled to the breech end of the launch tube arrangement. Claim 1 recites a "link" that is hingedly coupled on one end thereof to a ring 20 (i.e., at 42) to permit a cap 30 to be moved such that the projectile can be loaded into the inner tube from the breech end thereof. The "link" is rotationally coupled to cap 30 (i.e., at 46) at the central portion thereof, such that cap 30 can be rotated about the central portion. Similarly, claims 6 and 9 recite means for coupling cap 30 to ring 20 at 42 and 46 so that cap 30 can be (i) moved such that the projectile can be loaded into the inner tube from the breech end thereof, and (ii) rotated when its key (i.e., projections 32) resides in the ring's annular channel to misalign the key and the keyway (formed in the ring) thereby axially locking the cap to the outer tube.

None of the prior art cited by the Examiner appears to teach or even suggest the unique combination claimed by Applicant where structure is provided that allows the cap

(emphasis added) to be rotated (i) in one plane about its central portion to lock/unlock the cap, and (ii) in another plane to permit the cap to be moved out of the way to load/reload the launcher. This unique structure makes a concentric canister launcher reloadable in the field and makes the launcher suitable for placement in a close-pack array of such launchers.

Yagla does not teach or suggest any means to move/remove the cap 24 from the breech end of the launcher. Bitsakis' breech plug support mechanism is not coupled to the (locking) ring 16. Rather, the support mechanism is coupled on one end thereof directly to the launcher barrel. Furthermore, Bitsakis teaches the use of a "link" (i.e., 22, 26, 28, 30, 36) that prevents rotation of the cap about its central portion. See column 3, lines 42-44. Still further, Bitsakis' device could not work if its "link" were coupled to (locking) ring 16, because ring 16 must rotate while plug 14 remains stationary. See column 4, lines 23-35.

Accordingly, it is respectfully submitted that neither Yagla nor Bitsakis, alone or in combination, teach or suggest a linking structure that allows the cap to be rotated as Applicant claims. Indeed, since the plug in Bitsakis is

prevented from rotating about its central portion, Bitsakis teaches away from Applicant's disclosure and claims.

Therefore, independent claims 1, 6 and 9 (as well as dependent claims 2-5, 7-8 and 10-11) are patentable over the combination of Yagla in view of Bitsakis and are in condition for allowance.

For the above reasons, Applicant solicits an early and favorable response. Please apply any charges or credits to deposit account 50-0967.

Respectfully submitted,



SCOTT R. BOALICK
Attorney for Applicant
Reg. No. 42,337

Naval Surface Warfare Center
Dahlgren Division
17320 Dahlgren Road
Code XDC1
Dahlgren, VA 22448-5110
Phone: (540) 653-8061
Fax: (540) 653-8879